

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|------|---|---|------------------|---------|------------------|
| L1 | 6947 | (substrate or board or motherboard or "PCB" or "PWB") and (insulat\$3 or dielectric) and barrier and seed and metal\$4 and (via or trench or open\$3 or groove or slot) and thickness | US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB | OR | ON | 2006/01/31 19:13 |
| L3 | 5400 | 1 and ((second or upper or above or over or top) with (dielectric or insulat\$3)) | US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB | OR | ON | 2006/01/31 19:01 |
| L4 | 1492 | 3 and (@rlad<"20000118" or @ad<"20000118") | US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB | OR | ON | 2006/01/31 19:14 |
| L5 | 439 | 4 and ((dielectric or insulat\$3) with (polymer or polyim\$3)) | US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB | OR | ON | 2006/01/31 19:03 |
| L6 | 46 | 5 and (zirconium) | US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB | OR | ON | 2006/01/31 19:04 |
| L7 | 83 | ((substrate or board or motherboard or "PCB" or "PWB") and (insulat\$3 or dielectric) and barrier and seed and metal\$4 and (via or trench or open\$3 or groove or slot) and thickness).clm. | US-PGPUB | OR | ON | 2006/01/31 19:13 |
| L8 | 83 | 7 not 6 | US-PGPUB | OR | ON | 2006/01/31 19:13 |
| L9 | 10 | 8 and (@rlad<"20000118" or @ad<"20000118") | US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB | OR | ON | 2006/01/31 19:15 |
| L10 | 73 | 8 not 9 | US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB | OR | ON | 2006/01/31 19:18 |
| L11 | 1440 | 257/751.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB | OR | ON | 2006/01/31 19:18 |
| S1 | 11 | ((("6436787") or ("6362012") or ("20020047153") or ("5940319") or ("6153443") or ("6197688") or ("6465867") or ("5741626") or ("6312874") or ("5821168") or ("6194304"))).PN. | US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB | OR | OFF | 2004/08/27 12:59 |
| S2 | 0 | ((("6436787") or ("6362012") or ("20020047153") or ("5940319") or ("6153443") or ("6197688") or ("6465867") or ("5741626") or ("6312874") or ("5821168") or ("6194304"))).PN.) and seed and (barrier or adhes\$4) and coper and aluminum | US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB | OR | ON | 2004/08/27 13:00 |
| S3 | 3 | ((("6436787") or ("6362012") or ("20020047153") or ("5940319") or ("6153443") or ("6197688") or ("6465867") or ("5741626") or ("6312874") or ("5821168") or ("6194304"))).PN.) and seed and (barrier or adhes\$4) and copper and aluminum | US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB | OR | ON | 2004/08/27 13:00 |
| S4 | 45 | ("2842438" "20010002333" "20020014646" "20020028552" "20020096768" "20020109233" "3954570" "4386116" "4394223" "4423547" "4565157" "4574095" "4762728" "4788082" "4847111" "4931410" "4962058" "4984459" "4996584" "5019531" "5034799" "5084412" "5100499" "5130274" "5158986" "5173442" "5231056" "5240878" "5243222" "5256205" "5334356" "5354712" "5371042" "5384284" "5413687" "5426330" "5442237" "5447887" "5470789" "5470801" "5506449" "5538922" "5539060" "5595937" .pn. | US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB | OR | ON | 2004/08/27 13:46 |

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| S5 | 48 | ("5609721" "5635253" "5654245" "5670420" "5674787" "5679608" "5681441" "5695810" "5719089" "5719410" "5739579" "5763953" "5780358" "5785570" "5792522" "5801098" "5814557" "5821168" "5824599" "5858877" "5891797" "5891804" "5895740" "5897370" "5907772" "5911113" "5925930" "5930669" "5932928" "5940733" "5948467" "5962923" "5972179" "5972804" "5976710" "5981350" "5985759" "5989623" "5994777" "6008117" "6015465" "6017820" "6030877" "6065424" "6069068" "6071810" "6100193" "6126989").pn. | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2004/08/27 13:46 |
| S6 | 37 | ("6136095" "6139699" "6140228" "6140234" "6143646" "6150261" "6153507" "6159769" "6171661" "6177350" "6183564" "6187656" "6190732" "6197688" "6207222" "6207553" "6207558" "6211049" "6211073" "6221763" "6232219" "6249056" "6265311" "6271592" "6284656" "6287954" "6323553" "6326303" "6359328" "6372622" "6376370" "6387542" "6399489" "6403481" "6420262" "6426289" "6429120").PN. | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2004/08/27 13:46 |
| S7 | 130 | ((("2842438" "20010002333" "20020014646" "20020028552" "20020096768" "20020109233" "3954570" "4386116" "4394223" "4423547" "4565157" "4574095" "4762728" "4788082" "4847111" "4931410" "4962058" "4984459" "4996584" "5019531" "5034799" "5084412" "5100499" "5130274" "5158986" "5173442" "5231056" "5240878" "5243222" "5256205" "5334356" "5354712" "5371042" "5384284" "5413687" "5426330" "5442237" "5447887" "5470789" "5470801" "5506449" "5538922" "5539060" "5595937"").pn.) (("5609721" "5635253" "5654245" "5670420" "5674787" "5679608" "5681441" "5695810" "5719089" "5719410" "5739579" "5763953" "5780358" "5785570" "5792522" "5801098" "5814557" "5821168" "5824599" "5858877" "5891797" "5891804" "5895740" "5897370" "5907772" "5911113" "5925930" "5930669" "5932928" "5940733" "5948467" "5962923" "5972179" "5972804" "5976710" "5981350" "5985759" "5989623" "5994777" "6008117" "6015465" "6017820" "6030877" "6065424" "6069068" "6071810" "6100193" "6126989").pn.) (("6136095" "6139699" "6140228" "6140234" "6143646" "6150261" "6153507" "6159769" "6171661" "6177350" "6183564" "6187656" "6190732" "6197688" "6207222" "6207553" "6207558" "6211049" "6211073" "6221763" "6232219" "6249056" "6265311" "6271592" "6284656" "6287954" "6323553" "6326303" "6359328" "6372622" "6376370" "6387542" "6399489" "6403481" "6420262" "6426289" "6429120").PN.) | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2004/08/27 13:46 |
| S8 | 153 | farrar-paul-a.in. | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2004/08/27 15:09 |
| S9 | 23 | farrar-paul-a.in. and (seed adj layer) and via\$2 and barrier | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2006/01/31 15:31 |
| S10 | 5 | (farrar-paul-a.in. and (seed adj layer) and via\$2 and barrier) and ((seed adj layer) and via\$2 and barrier).clm. | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2004/08/27 13:54 |
| S11 | 21 | ("2842438" "4762728" "4847111" "4962058" "5084412" "5130274" "5158986" "5173442" "5231056" "5654245" "5670420" "5763953" "5824599" "5891797" "5948467" "5994777" "6071810" "6140228" "6171661" "6197688" "6207222").PN. | USPAT | OR | ON | 2004/08/27 13:54 |
| S12 | 9 | ("4574095" "4789648" "4894260" "4985750" "5151168" "5183795" "5192581" "5240497" "5580668").PN. | USPAT | OR | ON | 2004/08/27 13:59 |

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| S13 | 40 | <p>((("2842438" "20010002333" "20020014646" "20020028552" "20020096768" "20020109233" "3954570" "4386116" "4394223" "4423547" "4565157" "4574095" "4762728" "4788082" "4847111" "4931410" "4962058" "4984459" "4996584" "5019531" "5034799" "5084412" "5100499" "5130274" "5158986" "5173442" "5231056" "5240878" "5243222" "5256205" "5334356" "5354712" "5371042" "5384284" "5413687" "5426330" "5442237" "5447887" "5470789" "5470801" "5506449" "5538922" "5539060" "5595937" .pn.)</p> <p>((("5609721" "5635253" "5654245" "5670420" "5674787" "5679608" "5681441" "5695810" "5719089" "5719410" "5739579" "5763953" "5780358" "5785570" "5792522" "5801098" "5814557" "5821168" "5824599" "5858877" "5891797" "5891804" "5895740" "5897370" "5907772" "5911113" "5925930" "5930669" "5932928" "5940733" "5948467" "5962923" "5972179" "5972804" "5976710" "5981350" "5985759" "5989623" "5994777" "6008117" "6015465" "6017820" "6030877" "6065424" "6069068" "6071810" "6100193" "6126989" .pn.)</p> <p>((("6136095" "6139699" "6140228" "6140234" "6143646" "6150261" "6153507" "6159769" "6171661" "6177350" "6183564" "6187656" "6190732" "6197688" "6207222" "6207553" "6207558" "6211049" "6211073" "6221763" "6232219" "6249056" "6265311" "6271592" "6284656" "6287954" "6323553" "6326303" "6359328" "6372622" "6376370" "6387542" "6399489" "6403481" "6420262" "6426289" "6429120" .PN.)) and (seed adj layer) and via\$2 and barrier and via\$2 and substrate</p> | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2004/08/27 14:02 |
| S14 | 34 | <p>(((("2842438" "20010002333" "20020014646" "20020028552" "20020096768" "20020109233" "3954570" "4386116" "4394223" "4423547" "4565157" "4574095" "4762728" "4788082" "4847111" "4931410" "4962058" "4984459" "4996584" "5019531" "5034799" "5084412" "5100499" "5130274" "5158986" "5173442" "5231056" "5240878" "5243222" "5256205" "5334356" "5354712" "5371042" "5384284" "5413687" "5426330" "5442237" "5447887" "5470789" "5470801" "5506449" "5538922" "5539060" "5595937" .pn.)</p> <p>((("5609721" "5635253" "5654245" "5670420" "5674787" "5679608" "5681441" "5695810" "5719089" "5719410" "5739579" "5763953" "5780358" "5785570" "5792522" "5801098" "5814557" "5821168" "5824599" "5858877" "5891797" "5891804" "5895740" "5897370" "5907772" "5911113" "5925930" "5930669" "5932928" "5940733" "5948467" "5962923" "5972179" "5972804" "5976710" "5981350" "5985759" "5989623" "5994777" "6008117" "6015465" "6017820" "6030877" "6065424" "6069068" "6071810" "6100193" "6126989" .pn.)</p> <p>((("6136095" "6139699" "6140228" "6140234" "6143646" "6150261" "6153507" "6159769" "6171661" "6177350" "6183564" "6187656" "6190732" "6197688" "6207222" "6207553" "6207558" "6211049" "6211073" "6221763" "6232219" "6249056" "6265311" "6271592" "6284656" "6287954" "6323553" "6326303" "6359328" "6372622" "6376370" "6387542" "6399489" "6403481" "6420262" "6426289" "6429120" .PN.)) and (seed adj layer) and via\$2 and barrier and via\$2 and substrate) not farrar-paul-a.in.</p> | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2004/08/27 14:02 |

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|-----|----|---|---|----|----|------------------|
| S15 | 33 | (((("2842438" "20010002333" "20020014646" "20020028552" "20020096768" "20020109233" "3954570" "4386116" "4394223" "4423547" "4565157" "4574095" "4762728" "4788082" "4847111" "4931410" "4962058" "4984459" "4996584" "5019531" "5034799" "5084412" "5100499" "5130274" "5158986" "5173442" "5231056" "5240878" "5243222" "5256205" "5334356" "5354712" "5371042" "5384284" "5413687" "5426330" "5442237" "5447887" "5470789" "5470801" "5506449" "5538922" "5539060" "5595937").pn.) ((("5609721" "5635253" "5654245" "5670420" "5674787" "5679608" "5681441" "5695810" "5719089" "5719410" "5739579" "5763953" "5780358" "5785570" "5792522" "5801098" "5814557" "5821168" "5824599" "5858877" "5891797" "5891804" "5895740" "5897370" "5907772" "5911113" "5925930" "5930669" "5932928" "5940733" "5948467" "5962923" "5972179" "5972804" "5976710" "5981350" "5985759" "5989623" "5994777" "6008117" "6015465" "6017820" "6030877" "6065424" "6069068" "6071810" "6100193" "6126989").pn.) ((("6136095" "6139699" "6140228" "6140234" "6143646" "6150261" "6153507" "6159769" "6171661" "6177350" "6183564" "6187656" "6190732" "6197688" "6207222" "6207553" "6207558" "6211049" "6211073" "6221763" "6232219" "6249056" "6265311" "6271592" "6284656" "6287954" "6323553" "6326303" "6359328" "6372622" "6376370" "6387542" "6399489" "6403481" "6420262" "6426289" "6429120").PN.)) and (seed adj layer) and via\$2 and barrier and via\$2 and substrate) not farrar-paul-a.in.) and (insulat\$4 or oxide or dielectric) | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2004/08/27 14:03 |
| S16 | 17 | (((("2842438" "20010002333" "20020014646" "20020028552" "20020096768" "20020109233" "3954570" "4386116" "4394223" "4423547" "4565157" "4574095" "4762728" "4788082" "4847111" "4931410" "4962058" "4984459" "4996584" "5019531" "5034799" "5084412" "5100499" "5130274" "5158986" "5173442" "5231056" "5240878" "5243222" "5256205" "5334356" "5354712" "5371042" "5384284" "5413687" "5426330" "5442237" "5447887" "5470789" "5470801" "5506449" "5538922" "5539060" "5595937").pn.) ((("5609721" "5635253" "5654245" "5670420" "5674787" "5679608" "5681441" "5695810" "5719089" "5719410" "5739579" "5763953" "5780358" "5785570" "5792522" "5801098" "5814557" "5821168" "5824599" "5858877" "5891797" "5891804" "5895740" "5897370" "5907772" "5911113" "5925930" "5930669" "5932928" "5940733" "5948467" "5962923" "5972179" "5972804" "5976710" "5981350" "5985759" "5989623" "5994777" "6008117" "6015465" "6017820" "6030877" "6065424" "6069068" "6071810" "6100193" "6126989").pn.) ((("6136095" "6139699" "6140228" "6140234" "6143646" "6150261" "6153507" "6159769" "6171661" "6177350" "6183564" "6187656" "6190732" "6197688" "6207222" "6207553" "6207558" "6211049" "6211073" "6221763" "6232219" "6249056" "6265311" "6271592" "6284656" "6287954" "6323553" "6326303" "6359328" "6372622" "6376370" "6387542" "6399489" "6403481" "6420262" "6426289" "6429120").PN.)) and (seed adj layer) and via\$2 and barrier and via\$2 and substrate) not farrar-paul-a.in.) and (insulat\$4 or oxide or dielectric)) and (polymer or polyimide) | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2004/08/27 14:04 |
| S17 | 26 | ("2842438" "3954570" "4386116" "4788082" "4931410" "4962058" "5100499" "5158986" "5173442" "5240878" "5256205" "5334356" "5470789" "5470801" "5506449" "5635253" "5659193" "5674787" "5679608" "5681441" "5695810" "5717236" "5785570" "5913147" "5982040" "6107657").PN. | USPAT | OR | ON | 2004/08/27 14:05 |
| S18 | 3 | "6465867" | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2004/08/27 15:58 |
| S19 | 6 | ("6057237" "6136682" "6140231" "6144096" "6146993" "6348732").PN. | USPAT | OR | ON | 2004/08/27 15:09 |
| S20 | 2 | ("6136682" "6181012").PN. | USPAT | OR | ON | 2004/08/27 15:11 |
| S21 | 1 | "6465867".URPN. | USPAT | OR | ON | 2004/08/27 15:12 |
| S22 | 2 | "6348732".URPN. | USPAT | OR | ON | 2004/08/27 15:12 |
| S23 | 6 | ("4933743" "4933754" "6127258" "6326305" "6348732" "6417566").PN. | USPAT | OR | ON | 2004/08/27 15:13 |
| S24 | 2 | ("6136682" "6181012").PN. | USPAT | OR | ON | 2004/08/27 15:14 |

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|-----|----|---|---|----|-----|------------------|
| S25 | 2 | "6348732".URPN. | USPAT | OR | ON | 2004/08/27 15:15 |
| S26 | 57 | substrate and (conductor adj core) and (channel adj stop) and (barrier with adhesion) and (seed adj layer) | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2004/08/27 15:58 |
| S27 | 57 | (substrate and (conductor adj core) and (channel adj stop) and (barrier with adhesion) and (seed adj layer)) and (dielectric or insulat\$4) and (contact\$4 or plug) and copper | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2004/08/27 15:59 |
| S28 | 57 | ((substrate and (conductor adj core) and (channel adj stop) and (barrier with adhesion) and (seed adj layer)) and (dielectric or insulat\$4) and (contact\$4 or plug) and copper) not (((("2842438" "20010002333" "20020014646" "20020028552" "20020096768" "20020109233" "3954570" "4386116" "4394223" "4423547" "4565157" "4574095" "4762728" "4788082" "4847111" "4931410" "4962058" "4984459" "4996584" "5019531" "5034799" "5084412" "5100499" "5130274" "5158986" "5173442" "5231056" "5240878" "5243222" "5256205" "5334356" "5354712" "5371042" "5384284" "5413687" "5426330" "5442237" "5447887" "5470789" "5470801" "5506449" "5538922" "5539060" "5595937").pn.) (("5609721" "5635253" "5654245" "5670420" "5674787" "5679608" "5681441" "5695810" "5719089" "5719410" "5739579" "5763953" "5780358" "5785570" "5792522" "5801098" "5814557" "5821168" "5824599" "5858877" "5891797" "5891804" "5895740" "5897370" "5907772" "5911113" "5925930" "5930669" "5932928" "5940733" "5948467" "5962923" "5972179" "5972804" "5976710" "5981350" "5985759" "5989623" "5994777" "6008117" "6015465" "6017820" "6030877" "6065424" "6069068" "6071810" "6100193" "6126989").pn.) (("6136095" "6139699" "6140228" "6140234" "6143646" "6150261" "6153507" "6159769" "6171661" "6177350" "6183564" "6187656" "6190732" "6197688" "6207222" "6207553" "6207558" "6211049" "6211073" "6221763" "6232219" "6249056" "6265311" "6271592" "6284656" "6287954" "6323553" "6326303" "6359328" "6372622" "6376370" "6387542" "6399489" "6403481" "6420262" "6426289" "6429120").PN.)) farrar-paul-a.in.) | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2004/08/27 16:14 |
| S29 | 14 | ("6083835" "6100184" "6114243" "6130161" "6157081" "6159845" "6258713" "6261950" "6274499" "6281127" "6288448" "6309970" "6323135" "6350678").PN. | USPAT | OR | ON | 2004/08/27 16:03 |
| S30 | 10 | ("5483568" "5772780" "5804513" "6103625" "6123088" "6143662" "6191027" "6200901" "6221775" "6232231").PN. | USPAT | OR | ON | 2004/08/27 16:06 |
| S31 | 4 | "6326305".URPN. | USPAT | OR | ON | 2004/08/27 16:06 |
| S32 | 14 | ("6083835" "6100184" "6114243" "6130161" "6157081" "6159845" "6258713" "6261950" "6274499" "6281127" "6288448" "6309970" "6323135" "6350678").PN. | USPAT | OR | ON | 2004/08/27 16:08 |
| S33 | 3 | ("5928962" "6227949" "6235071").PN. | USPAT | OR | ON | 2004/08/27 16:09 |
| S34 | 3 | "6350678".URPN. | USPAT | OR | ON | 2004/08/27 16:09 |
| S35 | 40 | ("2842438" "4565157" "4762728" "4847111" "4962058" "5084412" "5130274" "5158986" "5173442" "5231056" "5240878" "5371042" "5413687" "5609721" "5654245" "5670420" "5763953" "5824599" "5891797" "5948467" "5962923" "5972179" "5994777" "6017820" "6065424" "6015465" "6071810" "6136095" "6136699" "6140228" "6143646" "6153507" "6171661" "6177350" "6183564" "6190732" "6197688" "6207222" "6265311" "6271592").PN. | USPAT | OR | ON | 2004/08/27 16:13 |
| S36 | 13 | "6277263" | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2004/08/27 16:14 |
| S37 | 17 | (US-6465867-\$ or US-6207222-\$ or US-5824599-\$ or US-6287954-\$ or US-6069068-\$ or US-6348732-\$ or US-6146993-\$ or US-6140231-\$ or US-6144096-\$ or US-6136682-\$ or US-6181012-\$ or US-6541860-\$ or US-6326305-\$ or US-6127258-\$ or US-4933743-\$ or US-6350678-\$ or US-6277263-\$).did. | USPAT | OR | OFF | 2004/08/30 17:02 |

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|-----|------|---|---|----|-----|------------------|
| S38 | 3 | ((US-6465867-\$ or US-6207222-\$ or US-5824599-\$ or US-6287954-\$ or US-6069068-\$ or US-6348732-\$ or US-6146993-\$ or US-6140231-\$ or US-6144096-\$ or US-6136682-\$ or US-6181012-\$ or US-6541860-\$ or US-6326305-\$ or US-6127258-\$ or US-4933743-\$ or US-6350678-\$ or US-6277263-\$).did.) and liner | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2004/08/30 17:07 |
| S39 | 2 | (titanium adj silicide adj liner) and (metallization) and via\$2 and (insulat\$4 and substrate) | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2004/08/30 17:09 |
| S40 | 2 | titanium adj silicide adj liner | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2004/08/30 17:09 |
| S41 | 17 | silicide adj liner | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2004/08/30 17:09 |
| S42 | 15 | (silicide adj liner) not (titanium adj silicide adj liner) | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2004/08/30 17:09 |
| S43 | 18 | (US-4933743-\$ or US-5824599-\$ or US-6069068-\$ or US-6127258-\$ or US-6136682-\$ or US-6140231-\$ or US-6144096-\$ or US-6146993-\$ or US-6181012-\$ or US-6207222-\$ or US-6277263-\$ or US-6287954-\$ or US-6326305-\$ or US-6348732-\$ or US-6350678-\$ or US-6376368-\$ or US-6465867-\$ or US-6541860-\$).did. | USPAT | OR | OFF | 2005/03/02 16:45 |
| S44 | 180 | farrar-paul-a.in. | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2005/03/02 16:19 |
| S45 | 1384 | substrate and (via or opening)and seed and barrier and (dielectric or insulat\$4) and metal\$4 and angstrom | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2005/03/02 16:47 |
| S46 | 1362 | S45 not (S43 S44) | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2005/03/02 16:47 |
| S47 | 100 | S46 and ("Hf" or hafnium) and ("Zr" or zirconium) | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2005/03/02 16:47 |
| S48 | 49 | S47 and (polyimide or polymer) | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2005/03/02 16:48 |
| S49 | 34 | S48 and (etch\$4 adj (barrier or stop)) | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2005/03/02 17:11 |
| S50 | 15 | S48 not S49 | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2005/03/02 16:56 |
| S51 | 10 | ((("5937320") or ("6103320") or ("6208016") or ("6245662") or ("6288442") or ("6358849") or ("6552432") or ("6614099") or ("6743716") or ("6756298")).PN. | US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB | OR | OFF | 2005/03/02 17:01 |
| S52 | 1 | "20040217481" | US-PGPUB; USPAT; EPO; JPO; IBM_TDB | OR | ON | 2005/03/02 17:12 |

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|-----|----|--|---|----|-----|------------------|
| S53 | 3 | ((("20050023699") or ("20040217481") or ("20050023697")),PN. | US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB | OR | OFF | 2005/03/02 17:12 |
| S54 | 10 | ("5633200" "6143655" "6169024" "6215186" "6258707" "6288447" "6417094" "6492266" "6589863" "6740392").PN. | US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB | OR | ON | 2006/01/31 16:01 |
| S55 | 7 | ((("5348811") or ("5401680") or ("5789264") or ("6143671") or ("6251781") or ("6303498") or ("6365511")),PN. | US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB | OR | OFF | 2006/01/31 18:57 |